

PRESIDENT SMITH, WHERE ARE YOU?

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"Hey, Dad," said my daughter, Lois, "why hasn't there been a President Smith? Isn't Smith the commonest surname in the country?"

"It could have happened back in 1928," I replied, "when Al Smith ran on the Democratic ticket against Herbert Hoover, but lost. Depending on your point of view, he was either four years or thirty-two years ahead of his time. The nation was far more ready for a change of administration in 1932 than in 1928; and our first Catholic president was elected in 1960. But let's take a look at the actual Smith population in this country. Social Security records from 1936 to 1964 list about 1,678,000 Smiths among the 165,987,000 card-holders; thus, the probability that none of 37 people picked at random from the population is named Smith is .9899 raised to the 37th power, or nearly .69 -- hardly worth getting excited about. We might have to wait a century or more for President Smith to show up."

"Actually," I added, warming to my subject, "presidential surnames are more common than one would get by drawing people at random in the United States population. Let's look at the number of Social Security file names for each of the 37 presidents." After a bit of scribbling, I showed her the following list, with the number of names in thousands opposite each surname:

WASHINGTON	95	GARFIELD	6
ADAMS	284	ARTHUR	20
JEFFERSON	52	CLEVELAND	21
MADISON	17	HARRISON	525
MONROE	37	MCKINLEY	17
ADAMS	284	ROOSEVELT	1
JACKSON	432	TAFT	9
VAN BUREN	3	WILSON	553
HARRISON	525	HARDING	57
TYLER	42	COOLIDGE	3
POLK	17	HOOVER	39
TAYLOR	486	ROOSEVELT	1
FILLMORE	4	TRUMAN	5
PIERCE	98	EISENHOWER	9
BUCHANAN	48	KENNEDY	125
LINCOLN	11	JOHNSON	1263
JOHNSON	1263	NIXON	25
GRANT	89	FORD	124
HAYES	129		

"So what does this prove?" asked my skeptic.

"To a statistician, the data is screaming its head off. 28 of the 37 presidents have surnames which are shared by at least ten thousand people in Social Security records, but only a little more than half the people in the United States (actually, 52.7 per cent) have surnames this common. If I flip a coin with this probability of heads 37 times, the chances that I will get 28 or more heads out of 37 is only .044 -- less than 5 per cent. Rather than believe that an event of this low a probability has occurred, I prefer to believe that my hypothesis -- that presidents are drawn at random from the U.S. population as far as surnames are concerned -- is false."

"Well," Lois sniffed, "I certainly didn't need an elaborate statistical argument to come to that conclusion. I can think of at least two plausible reasons why presidential surnames should be more common than average. First, until very recent times presidents were drawn from white Anglo-Saxon Protestants, primarily English or German in ancestry; most of these families have been in this country for a couple of hundred years and multiplied like rabbits. Second, it's most unlikely that a man with a surname that nobody ever heard of (and perhaps can't pronounce) will ever go far in national politics. So what else is new?"

A bit miffed by her bad-mouthing, I tried a cheap shot. "Did you know that STATISTICS is an absolutely unique discipline? There's no other word with the same letter-pattern in Levine's Websterian list, and the same goes for the word STATISTICIAN."

Feeling that I had regained the initiative, I pressed on. "Notice that the rarest presidential surname is Roosevelt, with only 1,064 individuals in Social Security records. There are 3,456,000 in the U.S. whose surnames are so rare that they share them with 18 or fewer other people in the Social Security tabulations. If you draw 37 people at random, there is a 46 per cent chance that one or more of these will fall in this select group -- yet Roosevelt doesn't even come close, again showing that presidential surnames are biased toward common ones. I can make this statement more precise by calculating the infinitesimal probability that none of 37 surnames drawn at random falls below the 1,064 level ..."

I paused, noticing that Lois had a decidedly glassy-eyed expression. She seized the chance to interrupt my train of thought, and hastily asked, "Why did you capitalize the first six letters of each surname?"

"I'm glad you asked that question. The Social Security records don't tabulate surnames as such, but only the first six letters of the surname. Thus, names such as Roberts and Robertson are limped together under ROBERT. Most presidential surnames are uncontaminated by this mixing, but a few need to be revised downwards: Harrison, Jefferson, Harding and Eisenhower. By taking counts in Who's Who and American Men of Science, I estimate that Harrisons are only

about 33 per cent of the HARRIS group -- so, I'd downgrade these two presidents to about 170,000. The other three, judging from telephone-directory counts, ought to be scaled down to 35,000, 36,000 and 800, respectively. So actually Eisenhower, not Roosevelt, has the rarest presidential surname. Any more questions?"

She made a face. "To tell the truth, I'm afraid to ask any more. You've already told me more about presidential surnames than I wanted to know." She paused, and added brightly, "But if Mr. Smith ever runs for president, I promise to do my bit to further your statistics by voting for him."

QUERY

For a number of years Rudolf Ondrejka of Linwood, New Jersey has collected words ending in -MANIA or -PHOBIA. He wonders if Word Ways readers can supply examples of the former beginning with the letters W or Y, or examples of the latter beginning with Q. His standards for acceptable words are stringent -- multiple-word terms or hyphenated words are out, as are words not related to medicine or psychiatry (such as Tasmania, gentianophobia, etc.) Furthermore, he insists that the words must appear in print somewhere, so a reference or citation is essential.